## Message

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**Sent**: 12/1/2015 5:12:59 PM

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Subject: ST012 SEE System Update-City of Mesa Lift Station failure

## BCT members

On Tuesday afternoon Nov. 24, David Gonzalez with the City of Mesa (COM) contacted Amec Foster Wheeler (Amec FW) to report that one of the two pumps at a lift station downgradient from the ST012 outfall failed and the remaining pump was not able to keep up with flow in the line. He indicated there was a spare pump onsite and they needed the SEE discharge flow reduced so that the remaining pump could drop the water level in the lift station to a level that would allow them to replace the pump in a safe manner. The ST012 extraction system was taken offline and steam injection reduced to a minimum on Tuesday evening for the time needed to replace the pump.

On Wednesday morning, AmecFW called COM which indicated that they were in the process of staging a temporary pump and pipe at the surface of Power and Warner Roads (lift station location) to bypass the lift station and drawdown the water level so the pumps could be serviced. COM indicated a number of issues that require repair: (1) one non-operational pump, (2) the riser pipe was severely corroded and leaks the water back into the well, (3) the check valve failed on the operational pump. The COM discussed two options. The primary plan was to drawdown the water level so that they can set a pig (plug) upstream of the station, drain the lift station and get the operational pump back online. The backup plan was to use the temporary pump to bypass the station so that the line can be placed back in service. In either case, it was expected that the SEE system could begin extraction and discharge on Wednesday afternoon.

AmecFW spoke with COM late Wednesday afternoon (6pm). They were unable to pig the upstream side of the lift station and had to pump down the backed up water. COM reported it would be 2-3 hrs before discharging could proceed.

At 11:30 pm on Wednesday, AmecFW discussed current status with COM. COM indicated that the bypass was operational but not of sufficient capacity for discharge from the SEE system.

The Operations team shut down the SEE boilers on Thursday morning, Nov. 26th. COM continued work over the weekend on the solution but had not resolved the capacity issue by Saturday.

AmecFW spoke with COM on early Monday morning. COM indicated their subcontractors were developing an estimate as to when SEE discharging can resume. COM indicated on Monday afternoon that discharging could begin on Tuesday morning at 8 am. Extraction was started this morning (Tuesday) at 8:00 am with no capacity limitations.

The vapor extraction portion of the treatment system has remained in operation during this 7 day period. Water levels in perimeter wells were collected on Friday, Nov. 27th which indicated some rebound (still reduced from baseline) as a result of the extraction system shutdown. LNAPL was observed in perimeter monitoring wells W37, W11, and W30; however the LNAPL volumes were lower than when the extraction system was operating which is consistent with historical observations. Perimeter water levels will be collected after extraction is reestablished (expected to occur at approximately 72 hours). LNAPL monitoring and removal at perimeter wells

will continue on previous schedule.

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